What is claimed is:

- 1 1. A method of eliminating parasitic bipolar transistor
- 2 action in a Silicon on Insulator (SOI) Metal Oxide
- 3 Semiconductor (MOS) device, the method comprising:
- 4 Controlling the conduction of an active discharging
- 5 device, said active discharging device being coupled to said
- 6 SOI device, whereby the parasitic bipolar transistor is
- 7 deactivated.
- 1 2. The method of claim 1 further comprising:
- providing a first signal to a first node of said SOI
- device;
- 4 providing a second signal to an input of said SOI
- 5 device; and
- activating the conduction of said active discharging
- 7 device according to the state of said first and second
- 8 signals.
- 1 3. The method of claim 2 wherein the first signal is a
- 2 clock signal.
- 1 4. The method of claim 3 wherein said first node is
- 2 charged high whenever said clock signal is active low.

- 1 5. The method of claim 2 wherein the second signal is an
- 2 active low signal applied to said input during a pre-charge
- 3 cycle.
- 1 6. The method according to claim 1, wherein the active
- 2 discharging device provides a conduction path between said
- 3 second node of SOI device and a common node.

- 1 7. A method of eliminating parasitic bipolar transistor
- 2 action in a Silicon on Insulator (SOI) Metal Oxide
- 3 Semiconductor (MOS) dynamic logic circuit having an input an
- 4 output, a clock, a plurality of stacked SOI Metal Oxide
- 5 Semiconductor (MOS) transistors interconnected to perform a
- 6 predetermined logic function defining a common node and an
- 7 intermediate node, said plurality of stacked SOI MOS
- 8 transistors being controlled by a respective plurality of
- 9 inputs, said common node being coupled to a pre-charging
- device and said intermediate node being in a path between
- 11 said common node and a discharge potential, said path
- defined by said plurality of stacked SOI MOS transistors,
- 13 said intermediate node being coupled to said common node by
- 14 at least a first of said plurality of stacked SOI MOS
- 15 transistors, and said intermediate node being coupled to
- 16 said discharge potential by at least a second of said
- 17 plurality of stacked SOI MOS transistors, and an active
- 18 discharging transistor controlled by at least one of said
- 19 plurality of inputs, said active discharging transistor
- 20 defining a discharge path between said intermediate node and
- 21 said discharge potential, the method comprising:
- 22 controlling the conduction of said active discharging
- 23 transistor during a pre-charge cycle; and
- 24 actively discharging said intermediate nodes of the SOI
- 25 stacked transistors, whereby the parasitic bipolar
- 26 transistors are deactivated and the charge at said common

- 27 node is maintained at a predetermined level.
- 1 8. The method according to claim 7, wherein pre-charging
- 2 occurs during a low state of said clock.
- 1 9. The method according to claim 7, wherein pre-charging
- 2 occurs during a high state of said clock.
- 1 10. The method according to claim 7, wherein during the
- 2 pre-charging all said inputs are set to a predetermined
- 3 logic state.
- 1 11. The method according to claim 10, wherein said logic
- 2 state is low.
- 1 12. The method according to claim 10, wherein said logic
- 2 state is high.
- 1 13. The method according to claim 7, wherein the step of
- 2 actively discharging said intermediate nodes prevents the
- 3 body voltages of said stacked SOI transistors from reaching
- 4 a voltage stage sufficient to activate the parasitic bipolar
- 5 transistors of said stacked SOI transistors.

- 1 14. The method according to claim 7, wherein said stacked
- 2 transistors are N-Field Effect Transistors (NFET) and said
- 3 active discharging transistors are P-Field Effect
- 4 Transistors (PFET).
- 1 15. The method according to claim 7, wherein said stacked
- 2 transistors are P-Field Effect Transistors (PFET) and said
- 3 active precharging transistors are N-Field Effect
- 4 Transistors (NFET).
- 1 16. The method according to claim 7, wherein said pre-
- 2 charging device comprises transistors coupled to said
- 3 stacked transistors.